

## Esso Chemical Film Successfully Demonstrates Oil Slick Dispersant

At a Press Conference held at Lago early this week, Esso Chemical Company's film "Clean Seas Ahead" was shown to representatives of the press, radio and television. The film was introduced by Lago's PR/IR Manager B. E. Nixon.

The capabilities of Enjay's new chemical dispersant called COREXIT 7664, used in eliminating oil slicks on water, is demonstrated in this film. It dramatically shows how COREXIT 7664 breaks up heavy, black crude oil on the surface of the water. Slicks treated with the new product disappear within seconds. Since all Esso tankers will be carrying COREXIT 7664 in the future, and an ample supply of this product will be maintained at Lago, we can say with assurance that Aruba's beaches will have the maximum protection possible against accidental oil spills.

"Clean Seas Ahead", a 22-minute film, was produced and directed by Gerald Weiler, associated with Vavin, Inc., of New York City. The underwater sequences were filmed

by Don Renn, assisted by his wife Kathleen. Mr. Renn, a specialist in underwater photography, served as director of photography for all underwater sequences in the James Bond motion picture "Thunderball," which was filmed in the Bahamas.

Aruba was chosen as the filming locale as the island offers an ideal combination of abundant sunshine, steady tradewinds, white sand on the ocean floor — very important

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## Lago Donation Helps Work of Protestant Youth Group of Aruba

Lago President W. A. Murray while on a visit to the Piedra Plat Youth Center recently, presented Rev. J. A. Visser with a check representing the company's donation to the Protestant Youth Group of Aruba.

Those present discussed the importance of the work being done by the Protestant Youth Group. Mr. Murray stated that Lago is aware of the ex-

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Accompanied by PR Administrator O. V. Antonette, President W. A. Murray presents a check to Rev. J. A. Visser (left) to assist work of Protestant Youth Group of Aruba. Acompanja pa Administrador di PR O. V. Antonette, President W. A. Murray ta presenta un check na Rev. J. A. Visser (r) pa yuda trabao di Grupo Hubenil Protestant di Aruba.



PR/IR Manager B. E. Nixon welcomes local representatives invited to view Enjay's film "Clean Seas Ahead" during press conference held at Lago Nov. 11.

Gerente di PR/IR B. E. Nixon ta yama representantes bon-bini na conferencia di prensa pa mira pelicula "Clean Seas Ahead" na Lago Nov. 11.

## J. K. Jamieson Eligi President Di un Grupo di Conseho di Sanger

J. K. Jamieson, president di Standard Oil Company (New Jersey), a keda eligi como presidente di e Conseho di Sanger pa e territorio metropolitano di New York su directiva. El a worde eligi pa un anja.

## Pensionistas Opdyke Y Ward Ta Yuda Den Tarea pa Comunidad

Dos pensionista di Lago, John B. Opdyke y Colin L. Ward, poco dia pasá tabata den noticia pa nan actividad den comunidad.

Sr. Opdyke a recibi honores recientemente pa su trabao na beneficio di Grupo di Padvinder No. 454 na Gainesville, Florida.

E corant "Gainesville Sun" ta reporta: "Opdyke, kende a lanta Grupo 454, ta retira como Hopman despues di tres anja, y awor lo e bira representante di un grupo cerca institucion di padvindernan.

"El a cuminza den movimento di padvinder 31 anja

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Na Mei di e anja aki, Cruz Roja Americana y e Conseho di Sanger a combina nan programa pa ofrece un programa voluntario di sanger unificá pa territorio metropolitano di New York.

Promer cu formacion di e Conseho, tabatin mas cu 150 agencia independiente cu ta percura pa sanger. No tabatin notacion central di tiponan di sanger y cantidadnan disponibel. Pa falta di tal informacion, operacionnan urgente a keda posponi.

E conseho su facilidadnan y servicionan a merece fama mundial y respeto di profesion medica riba henter mundo.

Equipo special di refrigeracion na e Centro lo tin un inventario di 10,000 unidad di sanger den ijs.

Te poco tempu pasá, plasma di sanger cu a worde refrigerá frescu tabata unico producto conoci pa trata hemofilia, un enfermedad cu hende ta hereda di su mayor man y cu ta causa cu sanger no ta cuaha. Awor, un producto sacá for di sanger cu

(Continua na pagina 7)

**ARUBA**

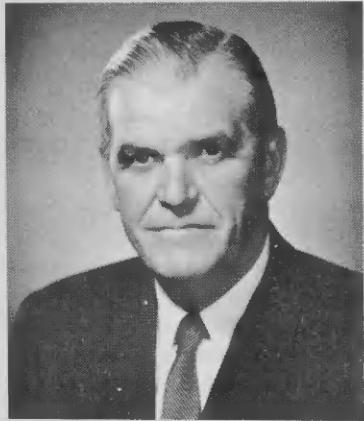
Lago Oil &amp; Transport Co., Ltd.

A. Werleman - Editor; Miss L.I. de Lange - Assoc. Editor;  
J. M. de Cuba - Photographer

## J. K. Jamieson Elected Chairman To Assist Blood Council Group

J. K. Jamieson, president of Standard Oil Company (New Jersey), has been elected chairman of the Community Blood Council of Greater New York Inc. board of directors for a one-year term, it was announced recently.

Last May, the American Red Cross blood program and the Blood Council's program were merged to offer a unified voluntary blood program for the Greater New York Area.



J. K. Jamieson

Before the Council was formed, blood was being handled by more than 150 independent agencies. There were no central records on blood types or quantities of it available. For lack of such information, urgent operations were often postponed and valuable time lost in emergency situations. In addition, Metropolitan New York was becoming increasingly dependent upon purchased blood.

The Council also conducts research in the field of blood and blood components, develops professional and technical training programs for medical, hospital and laboratory personnel and provides advanced clinical services. Its facilities and services have gained the Council worldwide renown and the medical pro-

fession's respect everywhere.

A pint of blood has become more than it represented only a few years ago. Now it is raw material that can be refined into many components to help patients suffering from a variety of diseases.

At the Council's laboratories, blood is frozen for blood typing and research and long-term storage. Research at the Council indicates that frozen blood stored at -320 degrees Fahrenheit will maintain its usefulness indefinitely. Special refrigeration equipment at the Center will eventually contain a 10,000-unit inventory of this frozen blood. Until recently fresh-frozen plasma was the most effective known product for the treatment of hemophilia, an inherited disease where the blood fails to clot. Now, a by-product of blood called *cryoprecipitate* has been developed by the Center and is an integral part of clinical treatment in New York. The Blood Center produced more than 9,300 unit last year.

It is to this combination of worldwide professional interest, scientific research and service that Mr. Jamieson will contribute his industrial and managerial experience. This experience dates back to 1931 when he was graduated from Massachusetts Institute of Technology with a Bachelor's degree in Engineering and began his career in the oil industry in Canada. He joined Imperial Oil Limited, an affiliate of Jersey Standard, in 1948.

After varied assignments with Jersey affiliates in Canada, South America and the United States, Mr. Jamieson was elected an executive vice president of Jersey Standard in 1964 and president in 1965.

## Retirees Opdyke and Ward Engaged In Varied Community Activities

Two Lago retirees, John B. Opdyke and Colin L. Ward, were in the limelight recently through their community activities.

Mr. Opdyke was honored recently for his service to Scouting by Boy Scout Troop 454 of Gainesville, Florida.

"Gainesville Sun" reported the following: "Opdyke, who founded Troop 454, is retiring after three years as its Scoutmaster and now will become the troop's institutional representative."

"He began his career of Scout leadership more than 31 years ago in Aruba in the Netherlands Antilles. Since then he has been almost continuously in charge of a Cub Scout, Boy Scout or Sea Scout unit. An announcement made recently said he has been nominated for the Silver Beaver Award for excellence in Scouting. He also received a scroll and a gift from Troop 454."



J. B. Opdyke

Mr. Opdyke was a supervising engineer in Mechanical-Engineering when he left Lago in January, 1965 after 28 years of service. The Aruba Government also honored him with the title of "Aruba's Goodwill Ambassador" before he left the island.

Mr. Ward, who was a supervising engineer in Technical-Engineering when he left Lago in October, 1963, recently completed a two-month assignment for the International Executive Service Corps (IESC) in Medellin, Colombia. As a volunteer executive he advised a Colombian engineering firm on work coordination and on reorganization of management.

IESC, sometimes called the

Businessmen's Peace Corps, is the New York based, non-profit organization which arranges for retired and mid-career executives to share their managerial know-how with enterprises in the developing nations.



C. L. Ward

A director and general manager of Shufling & Curley, Architects and Engineers, Miami, Florida, Mr. Ward had over 27 years of Lago service when he retired.

Mr. Ward's present address is 220 N.W. 127th Street, Miami, Fla. 33168.

### Lago Donation

(Continued from page 1)

cellent work being performed by this hard working organization.

"The guidance and direction given to the youth of Aruba, and the activities organized, are undoubtedly promoting the development of responsible citizens. We are proud our contribution will help you continue this exemplary service to the community," Mr. Murray remarked.

Mr. Murray requested Rev. Visser to "convey my personal congratulations to the persons responsible for the fact that the Protestant Youth Group of Aruba is one of our finest organizations".

One of the group's major activities is the operation of the Piedra Plat Youth Center. This Center is used by youth groups from every corner of the island. Regularly, school groups from Curaçao and Bonaire, holding camp on Aruba, are accommodated at the Center.

# Lago Uses over 300 Oil Tanks To Help Supply World Markets

Lago's refinery area is dotted with over 300 tanks in various sizes and shapes, containing mostly crude and crude oil products, but also chemicals and water.

In all, Lago's tankage capacity is over 20,000,000 barrels.

The majority of the tanks are cylindrical in shape, but there are some twelve spheres and four spheroids. Over 90% of the tanks are provided with a roof, most of them of the cone type. Some have a dome, while others have floating roofs and others are open. Most of the floating roofs have single decks, others have double decks. They serve to control vapor pressure and prevent evaporation of light products, such as gasoline.

Some oil products, such as pentane and lighter products, are stored under pressure in spheres and spheroids. Pentane, for instance, is stored at a vapor pressure of about 16 pounds per square inch, while butane is kept under a vapor pressure of approximately 60 pounds per square inch.

Not all oil products are stored at normal temperature. Tanks for storing asphalt and heavy fuels, for instance, have heating coils to keep the products at temperature (about

150° F) for easy flow.

As to tank sizes, there is the huge 630,000-bbls. crude tank, 250 feet in diameter and 76 feet high, and a small 170-barrel tank with motor gasoline for local sales.

Even smaller are the 140-barrel tanks for storing caustic at the Acid Treating Plant.

Standing highest of all is the drinking water tank near the hospital. It is 167 feet high and contains 100,000 gallons of water.

In the former days, most of the tanks were riveted construction. All the tanks constructed later were welded. The thickness of steel plates used for tanks vary from  $\frac{3}{8}$ " to 1-11/16 inch for the larger tanks.

About forty of the first tanks built in 1929 are still in service. Major tank construction took place between 1936 and 1939. During that time some 130 tanks were built. However, many of these have been dismantled or replaced.

Most of these more than 300 tanks are neatly arranged in blocks in an area extending from the western end of the refinery to the most eastern section. In all, they contain about 150 different grades of products to supply worldwide markets.



Tanks of varying shapes and sizes can be seen from top of a cone roof tank.

Tankinan di varios forma y grandura por ser mira for di top di tanki cu dak di forma conico.

## Lago Ta Usa mas di 300 Tanki Pa Entrega Petroleo Na Mercado

Reparti riba tereno di Lago su refineria tin mas cu 300 tanki di varios midi y forma, cu ta contene pa major parti zeta crudo y productonan for di zeta crudo, pero tambe substancianan química y awa.

Tur huntu Lago su tankinan tin un capacidad di mas cu 20 miljon bari.

Majoria di e tankinan tin un forma cilindrico, pero tambe tin diezdos forma di bola y cuater cu forma di siboyo. Mas cu 90% di e tankinan tin dak, majoria di forma conica. Algun tin un dak rondó, di otro e dak ta drief riba e zeta y algun ta habri. Majoria di e daknan cu ta drief riba zeta tin un solo dek, pero otronan tin un dek dobbel. Esaki ta pa domina presion di vapores di zeta y evita evaporacion di zetanan liher, manera gasolin.

Algun producto, manera gas pentano y productonan liher, ta wardá bao di presion den e tankinan manera bola. Por ehempel pentano ta wardá bao di un presion di vapor di 16 liber pa cada duim cuadrá, mientras butano ta wardá bao di un presion di como 60 liber pa cada duim cuadrá.

No tur productonan ta wardá bao di temperatura normal. Por ehempel tankinan pa warda asfalt y combustiblenan pisá, tin tubo den forma di un spiral pa tene e productonan na un temperatura di mas

of menos 150° F. pa pomp e cu facilidad.

Tocante midi di tankinan, tin esun gigantesco di 630,000 bari pa crudo, cu tin un diametro di 250 pia, y haltura di 76 pia; y tin un tanki chiquito di 170 bari cu gasoline pa motor pa venta local.

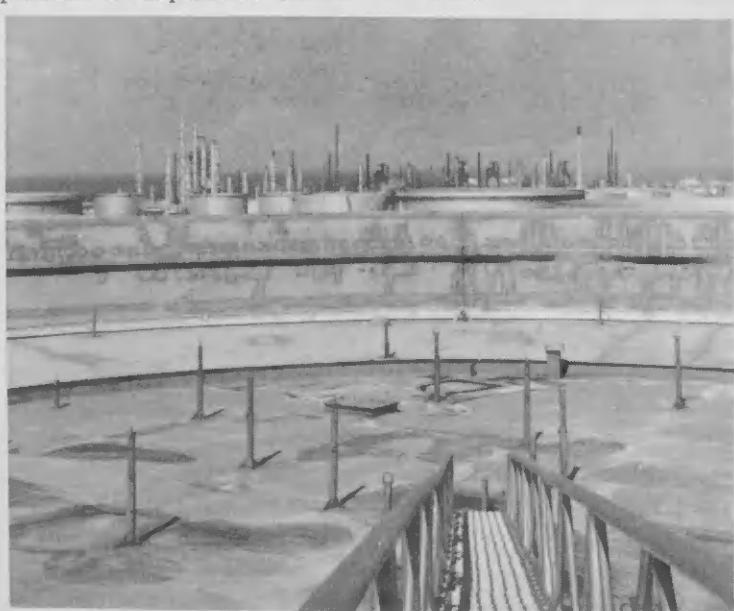
Mas chiquito ainda ta e tankinan di 140 bari pa planta pa cäustico pa e planta cu ta trata productonan cu acido.

E tanki cu ta keda mas hal-tu cu tur ta = tanki cu awa pa bebe banda di hospital. E ta 167 pia haultu y ta contene 100 mil galon di awa.

Anteriormente majoria di e tankinan tabata trahá cu remache. Compania a weld tur tankinan construi mas laat. Diki di e planchanan di tanki ta varia di  $\frac{3}{8}$ " te 1-11/16" pa tankinan grandi.

Tin cuarenta di e promer tankinan trahá na 1929 cu ainda ta na uso. Construccion na cantidad di tanki a tuma lugar entre 1936 y 1939. Den e anjanan ey compania a trahá 130 tanki. Pero hopi di nan a wordie reemplazá.

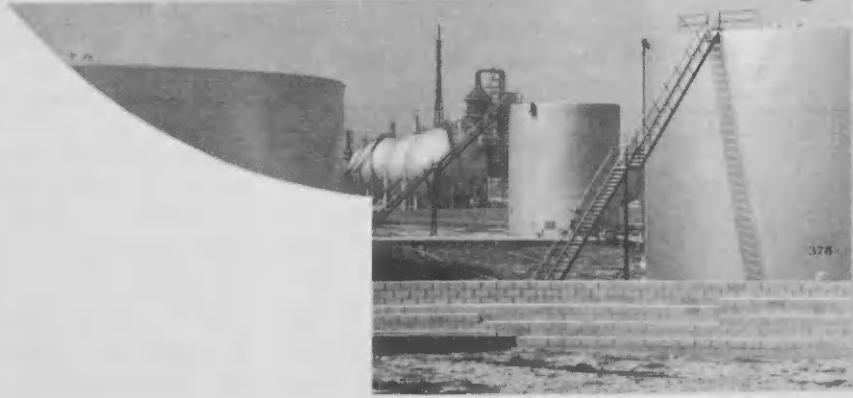
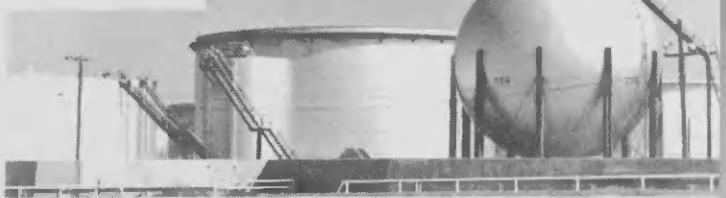
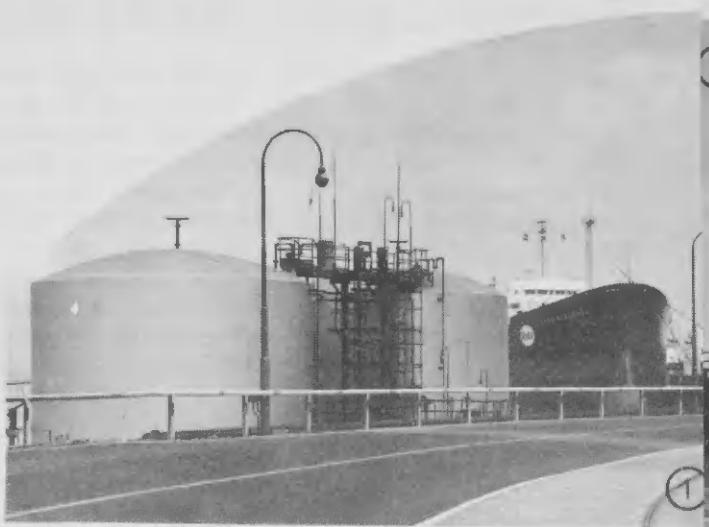
Majoria di e 300 tankinan ta poní na orden den grupo di tanki riba un superficie cu ta extende for di fin di refineria pabao, te na e punto di mas pariba. Na tur, = tankinan ta contene como 150 diferente grado di producto pa ser transporta na mercadonan riba henter mundu.



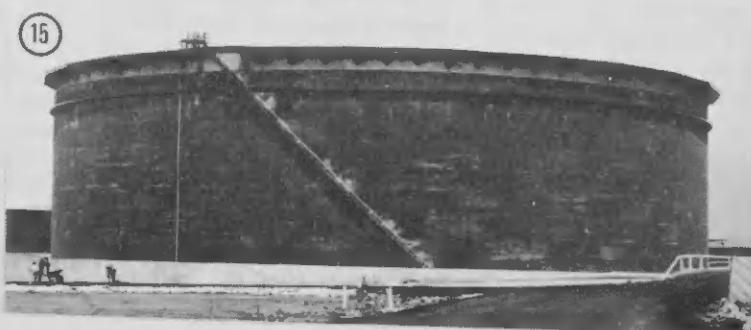
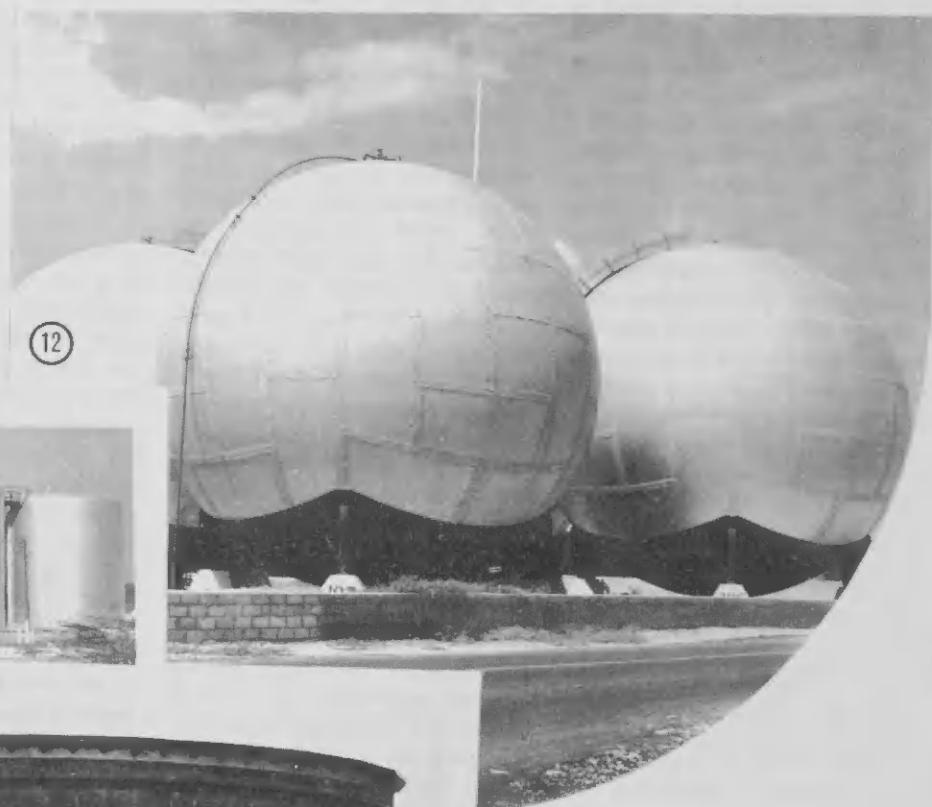
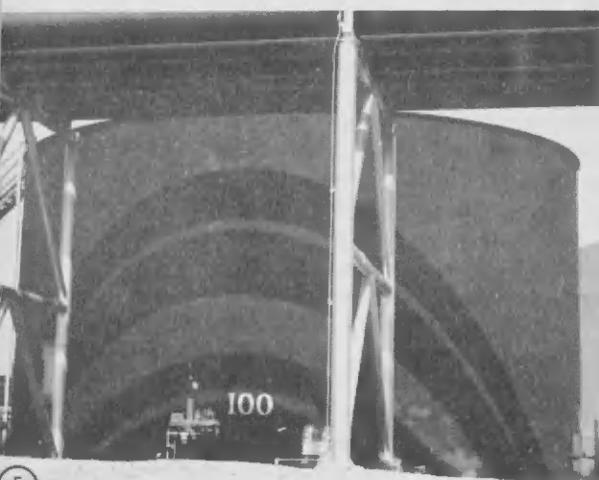
Interior view of a floating roof tank, with more tanks in background.

Bista for di paden di un tanki cu dak flotante, cu mas tanki den distancia.

1. T.E.L. (Tetra-Ethyl Lead-gasoline additive) tanks overlooking harbor.
2. Spheroid tank with new crude tanks in the background.
3. Spheres, welded construction, at Gasoline Pumphouse.
4. Bulk storage acid tanks at Acid Plant.
5. Oldest tank (August 8, 1928) near Loading Pumphouse.
6. Smallest tank (No. 485), at Loading Rack.
7. Flat roof caustic tanks with dome roof acid tank in background at Acid Treating Plant.
8. Spheroid tank at Gasoline Field.
9. Cone roof, floating roof and sphere tanks.
10. Water tank at Hospital stands 167 feet high.
11. Water tank at No. 2 Power House with fuel oil tanks for boiler.
12. Spheres - riveted construction.
13. Tanks of various sizes and shapes.
14. Cylinder-shaped open caustic tanks at Acid Treating Plant.
15. Largest crude tank (630,000 bbls.).



1. Tanki cu chumbo Tetra-Ethyl cerca di haaf.
2. Tanki spheroid cu tanki nobo di crudo banda patras.
3. Tanki rondo, di construccion di welding, na Gasoline Pumphouse.
4. Tankinan di acido na Acid Plant.
5. Tanki mas bieuw (Augustus 8, 1928) cerca di Loading Pumphouse.
6. Tanki mas chikito (No. 485), na Loading Rack.
7. Tankinan di caustico cu dak plat, y tanki acido cu dak rondo na Acid Treating Plant.
8. Tanki spheroid na Gasoline Field.
9. Tanki cu dak di forma di cone, cu dak flotante y tanki rondo.
10. Tanki di awa na Hospital tin 167 pia hantu.
11. Tanki di awa na Powerhouse No. 2, huntu cu tanki di combustible pa boilernan.
12. Tankinan rondo, remacha.
13. Tankinan di varios tamanjo y forma.
14. Tanki cilindrico habri pa caustico na Acid Treating Plant.
15. Tanki crudo mas grandi (630,000 baril).



**COREXIT 7664****Enjay's Effective Oil Slick Dispersant**

COREXIT 7664, a highly effective oil slick dispersant, was developed by Esso Chemical Company's affiliate Esso Research and Engineering Company. The product is manufactured and marketed by Enjay Chemical Company.

The dispersant breaks up oil slicks and promotes the natural degradation of oil. Last April, an oil slick fifteen miles long and three miles wide, caused by a major spill off the coast of Afrika by tanker "Esso Essen", was completely eliminated by three days aerial spraying with the new dispersant. It was also effectively used in the oil spill from "General Colocotronis" in The Bahamas.

Corexit 7664 will also find a variety of applications in normal maintenance and clean-up operations wherever crude oil is produced, moved and used, and in manufacturing installations of all kinds.

Corexit, an amber-colored fluid, an emulsifier, to which a diluent has been added to decrease its viscosity, works by speeding up the natural tendency of an oil slick to "flatten out" and spread on water surface. Agitation of the dispersant-treated slick rapidly breaks up the oil film into minute separate droplets. Sea bacteria then causes the droplets to disintegrate.

The mixing energy may be supplied by wind, waves, work boats, helicopter prop wash or high velocity fire hose.

One part of Corexit will handle 10 parts of oil, but efficiencies as high as 1 to 100 have been observed.

For best results, Corexit 7664 should be sprayed directly onto the oil slick in a uniform, fine spray pattern. Small quantities of the dispersant can be effectively applied with hand-operated pumps or pressurized fire extinguishers. Larger quantities can be handled by eductor systems and aerial application equipment.

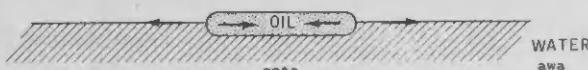
In addition to being an efficient oil dispersant, toxicity was equally important consideration in the development of Corexit.

In preliminary lab experiments at Florham Park, tropical fish exhibited no harmful effects even after several days in water containing 1,000 parts per million of the new product, Corexit.

The tests showed also that the mortality of shrimp (one of the most sensitive of all marine species) exposed to Corexit at 10,000 parts per million was not significantly different than the mortality of shrimp in untreated sea water. On the other hand, other commercial dispersants were tested and found toxic to shrimp at concentrations of 15 to 30 parts per million.

Although Corexit is highly effective, it is most important to treat the oil slick before it reaches shore.

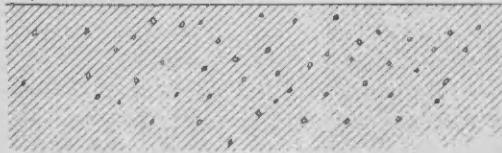
EFFECT OF DISPERSANT ON OIL SLICK  
efecto di e dispersante riba mancha di zeta



II DISPERSANT PROMOTES SPREADING OF OIL FILM  
e dispersante ta juda e pelicula di zeta plama



III OIL READILY DISPERSES AS FINE DROPLETS  
Zeta ta dispersa rapido como drappel masha fini.



Work boat moving through oil slick helps Corexit disperse and break up oil film within seconds.

Boto moviendo door di mancha di zeta ta yuda Corexit plama y elimina e zeta dentro di poco seconde.

**COREXIT 7664****Producto Efectivo pa Elimina Zeta riba Awa**

Esso Chemical Company su afiliado Esso Research & Engineering Company, a desaroya un producto cu yama COREXIT 7664 pa elimina zeta riba lama. Enjay Chemical Company ta traha y bende e producto.

E dispersante di zeta aki ta plama plekki di zeta y ta haci cu e zeta ta disaparece completamente. Na April di e anja aki, un mancha di zeta di 15 milja largu y 3 milja hanchu a basha for di e tankero "Esso Essen" na Costa di Africa. E mancha a desararece completamente despues di a ser tratá tres dia cu e dispersante nobo. Tambe nan a usé cu exito ora zeta a plama for di e tankero General Colocotronis den Bahamas.

Corexit 7664 lo por worde usá tambe pa trabao di mantenicion y limpiamentu caminda zeta crudo ta ser produci, transportá y usá y den plantanan di fabricacion di varios tipo.

Corexit, un liquido color geel-bruin, ta un emulsificante na cual a ser añadi un diluyente pa hacié mas delegá. E ta haci e azeta plama mas liher riba superficie di awa. Ora e mancha tratá cu Corexit worde moví, e mancha ta plama rapidamente y ta bira manera cantidad di drappel masha chikito. Bacteria di lama despues ta haci e drappelnan desaparece.

Energia pa mezcla por bini

di bientu, olanan, boto di motor, propeller di helicopter, of door di sput superfcie di awa cu hoos. Un parti di Corexit lo trata 10 parti di azeta, pero nan a observa eficacia den un mezcla di 1 pa 100.

Pa mejor resultado, Corexit 7664 mester worde gesput directamente riba e mancha di zeta, di un manera uniforme y fini. Cantidadnan chikito di e dispersante por worde usá cu efecto cu pomp di man, of cu aparatonan di paga candela. Cantidadnan grandi por worde aplicá cu hoos of door di sput e producto for di avion.

Fuera di ta un bon dispersante di zeta, e producto su contenido di veneno tabata un punto di masha importancia den desaroyo di Corexit.

Pruebanan a munstra cu mortalidad di cabaron (un di e animalnan di lama mas sensitivo pa veneno) den awa cu 10,000 parti pa cada milion no tabata mucho diferente for di mortalidad di cabaron den awa sin Corexit. Al contrario, compania a haci prueba cu otro dispersantenan comercial y nan a haya cu nan tabata venená cabaron den concentracion di 15 te 30 parti pa cada milion.

Corexit ta masha eficaz contra azeta ora e ta arriba awa y pesey ta di suma importancia pa trata e mancha di azeta promer cu e drief bai pega na costa.

# Sistema Nobo di Filter Ta Sigura Mihor Calidad di Combustible Jet

Combustible pa jet ta worde usá pa miles di aeroplano comercial y no-comercial. Nan tin mester di combustible pa jet di calidad di mas haltu. Pa cumpli cu exigencianan di limpieza y di calidad, Lago su Division Oil Movements algun dia pasá a pone na uso dos sistema pa filtra combustible pa jet. Nan lo sigura clientenan di Lago un producto di mayor calidad y limpieza.

Awor combustible ta worde filtrá door di un tanki chikito den cual tin 219 cartucho di filter, cu ta parce hopi na filter di auto. Pero esakinan ta mas grandi: 14 duim largu y 6 duim hanchu. E tanki tambe tin un valvula cu ta habri ora presion bira di mas, y tin kranchi na entrada y salida pa saca muestra di e zeta.

Elementonan di filter ey ta traha pa saca frustu cu ta mas grandi cu 5 micron for di e zeta. Esaki ta nifica cu 98% di particulonan cu ta 5 micron of mas grandi ta keda pegá riba papel di e filtro. Cada elemento tin un superficie di filtro di 3,300 duim

cuadrá, y e papel ta trahá pa dura hopi tempu na uso.

Elementonan den e filtro por filtra te 2 milion bari di combustible pa jet, promer cu mester pone un nobo. Nan por traha cu un fluho di combustible cu ta worde gepomp na razon di 12 mil galon cada minuto, y nan por wanta un presion di 100 liber pa cada duim cuadrá promer cu nan kibra.

E sistemanan di filter por worde conectá na tuberia di tur waf cu ta carga barcu, cu excepcion di waf cu jama Finger Pier No. 1.

Cada tanki cu un set di filtro ta costa mas of menos \$10,000. Costo total di henter e projecto di filtro ta aproxiadamente 80 mil dollar.

Camilo S. Daal di Mechanical-Engineering, cu ta encargá cu e projecto, ta bisa cu, tin cuater di e tipo particular aki di filtro (VF-7242) pa filtra zeta na gran cantidad instalá den refinerianan den henter mundo. E otro dos ta na uso den refineria di Abadan y na Saudi Arabia.

## Pensionistas Opydyke y Ward

(Continuá di pagina 1) pasá mientras e tabata traha na Aruba, Antiljas Hulandes. Desde e tempu ey e tabata casi constantemente encargá cu trabau pa Welp, Padvinder y Zeeverkennernan. Un anuncio recientemente ta bisa cu nan a propone di duné e decoracion di Castor di Plata pa su excelente trabao na labor di padvinder. El a recibí tambe un certificado di honor y un regalo di Grupo 454".

Sr. Opydyke tabata ingeniero supervisor den Lago su division Mechanical-Engineering, tempu cu el a retira na Januari 1965 despues di 28 anja di trabao. Gobierno di Aruba tambe a honré cu titulo di "Embajador di Bon Boluntad di Aruba" ora cu el a bai.

Sr. Ward, kende tabata un ingeniero supervisor den Lago su division Technical-Engineering tempu cu el a retira na October 1963, recientemente a cumpli un encargo di

Cuerpo Internacional Ehecutivo di Servicio (IESC) na Medellin, Colombia. Como un ehecutivo voluntario el a conseña un empresa Colombiano di ingenieria tocante coordinacion y reorganizacion di nan sistema di gerencia. Cuerpo Internacional Ehecutivo di Servicio, cual tin bes ta ser jamá Cuerpo di Paz di Comercianten, tin su oficina central na New York. E organacion no ta desea di gana placa, y nan ta haci aregionan pa ehecutivonan retirá of cu ta na mitar di nan carera por reparti nan saber di gerencia cu empresanan den nacionnan cu ta desaroljando.

Siendo director y gerente general di Shufling & Curley, Arquitectos y Enginieros na Miami, Florida, Sr. Ward tabatin over di 27 anja cu Lago tempo cu el a retira.

Sr. Ward su direccion actual ta: 220 N.W. 127th Street, Miami, Florida 33168.



Camilo Daal of Mech.-Engineering shows one of 219 special filter cartridges contained in this milli-pore jet fuel filter unit. This new filter system helps assure maximum product cleanliness.

Camilo Daal di Mech.-Engineering ta munstra uno di e 219 filtro special cu tin den e drum aki. E sistema nobo di filtro ta yuda asegura maximo limpieza di e producto.

## Milli-Pore Filter System Assures Customers Best Quality Jet Fuels

Jet fuels power thousands of commercial and non-commercial aircraft. These jet planes require fuels of the highest quality. To meet increased cleanliness and quality specifications, Lago's Oil Movements Division recently placed two new jet fuel filter systems in service. These systems will assure customers improved product cleanliness and quality.

Now, the fuel is filtered through a vessel containing 219 filter cartridges which resemble oil filters for automobiles. However, they are somewhat larger: 14 inches long and 6 inches in diameter. The vessel is also equipped with a pressure relief valve and sampling probes at the inlet and outlet.

The filter elements are designed to remove rust at a 5-micron retention level. This means that 98% of particles that are 5 microns or larger will be retained on the filter paper. Each element contains 3,300 square inches of filter paper, developed especially to provide long life.

The filter elements are rated to filter some 2,000,000 barrels of jet fuel before they are replaced. The elements are capable of handling a flow of fuel pumped at a rate of

12,000 gallons per minute and can withstand a pressure of 100 pounds per square inch without collapsing.

The filter systems can be connected to the lines of all loading piers, except No. 1 Finger Pier.

Each vessel with a set of filter cartridges cost about \$10,000. Total cost for the whole project is about \$80,000.

Camilo S. Daal of Mechanical-Engineering, who is in charge of the project, says there are about four of this particular type (VF-7242) of jet fuel milli-pore bulk filter systems installed in refineries throughout the world. The other two are in operation in Abadan and Saudi Arabia.

## Conseho pa Sanger

(Continuá di pagina 1)

yama cryoprecipitato a ser desaroljá. E Centro di Sanger u produci mas cu 9,300 unidad di e producto aki anja pasá.

Ta na e combinacion aki di interes profesional mundial, di ciencia y prueba científico y servicio cu Sr. Jamieson lo contribui su experiencia den gerencia y industria.

Sr. Jamieson ta president di Jersey Standard desde 1965.

## Dowsing Experts Are Scarce, But Imperial Oil Has Art Poitras

Some people believe it, some call it witching, but whatever the power is, there are some people in the world who can use the divining rod with success.

One of them is Art Poitras, man who works for Imperial Oil Limited, Canadian affiliates of Standard Oil Company (New Jersey). He is one of the mystery men — a dowsing virtuoso.

Scores of times in 45 years, he has used a forked willow branch to find underground water, usually in places where science and technology have failed. But he has never failed and has never understood why he succeeded.

There are a few cases where he helped Imperial find a badly needed water source. While building a gas plant at a field 140 miles of Edmonton, a good supply of water was essential. All attempts to find water failed.

Then someone thought about Mr. Poitras. Skeptical of his powers, management nevertheless dispatched a company aircraft for him.

The man who stepped off the plane was neither witch, mystic, or kook. He was 51 and balding, with the hard, thick build and windburned look that indicates outdoor life. After a little study of the topography, he crossed and recrossed the area with a fresh-cut forked willow branch. It took him three hours of wrist-aching and palm-blistering divining before he could say: "You'll find water here." And they did.

Last year drillers were having trouble finding good drinking water around Imperial's Redwater, Alta., fertilizer plants. Mr. Poitras was summoned.

On his first try, 30 gallons a minute of good water were found at 125 feet.



Imperial Oil's dowsing expert, Art Poitras.  
Art Poitras, experto descubridor di awa di Imperial.

## Experto Hayador di Awa Ta Scars, Pero Imperial Co. Tin Art Poitras

com e si tabata tin exito.

Mientras trahando na Canada, tabata necesario pa compania tin un bon fuente di awa. Tur esfuerzo pa haja awa a faja.

Nan a manda un aeroplano bai busca Sr. Poitras.

E homber cu a baha for di aeroplano no tabata un hacedor di bruha, ni un curioso. Despues di a studia e tereno ey banda, el a cruza varios bez e tereno cu un taki di mata cu el a caba di corta. A tumé tres ora cu dolor di su pols y blaar na su man promer cu e por a bisa: "Boso ta hanja awa aki." Y nan a haja awa.



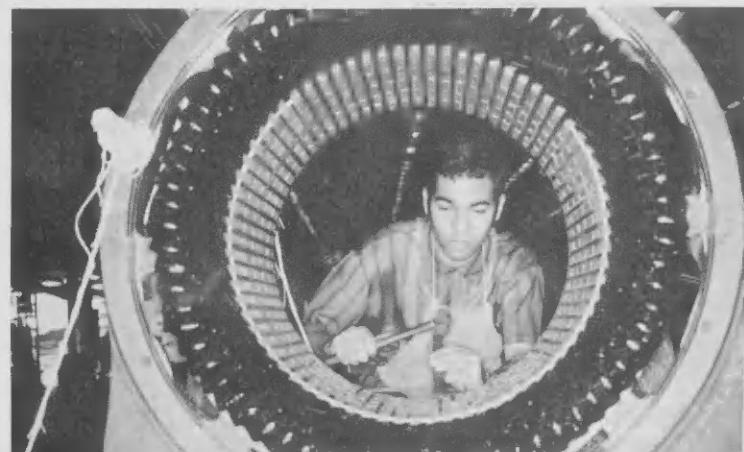
Underwater film taken in lagoon shows black oil slick on water with white segments where Corexit disperses oil. Film bao awa saka den lagoen ta munstra mancha pretu di azeta riba awa y parti blancu unda Corexit a elimina zeta.

### Esso Chemical Film

(Continued from page 1)  
ant for aerial pictures of oil on water — and exceptionally clear, blue-green water as well as abundant sea life. Other locations used to film field tests on the chemical itself and its lack of toxicity on a wide variety of marine life included Houston, Texas; Miami, Florida; Plymouth, England; and Florham Park, New Jersey.

Filming was done during

the first week of September this year, in the lagoon west of the Esso Club. The cameramen filmed scenes from under water, from a helicopter equipped with a special camera, and from work boats. Assisting in this work in Aruba was a task force of twenty, including Esso people of varied experience from New York, Houston, Brussels, London, Caracas, Tia Juana and Aruba.



On a training assignment under the Lago Cooperative Education Program, Hubert T. Lopez, an HTS electrical engineering student at Breda, Holland, assists in rewinding an electric motor.

Aki Hubert T. Lopez, un estudiante de HTS den ingenieria electrical na Breda, ta asisti pa "rewind" un motor.